Eiconcard C3x Family

for Type II PCMCIA Bus

Second Edition (January 2002)   203-049-02

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Introduction

The Eiconcard C3x is a Type II PCMCIA Release 2.1-compliant card that offers X.25 through a V.24 serial port at speeds of up to 64 Kbps, and/or through an ISDN BRI port (Eiconcard C31) at speeds of up to 128 Kbps (over the "D" channel or the "B" channels).

Note *The Eiconcard C3x also supports protocols such as SDLC, PPP, and Frame Relay.*

All Eiconcards have been tested and found to comply with the Electromagnetic compatibility, Safety and Network connection regulations within the European Union, North America, and other major territories. Read the regulatory information on page 12 before installing and using your adapter.

Hardware Features

The Eiconcard C3x features the following:

Eiconcard	CPU/Memory/Flash	# of VHSI Ports	#of ISDN BRI Ports
Eiconcard C30	15.36 MHz Motorola 68302 / 512 KB RAM / 512 KB Flash	1	N/A
Eiconcard C31	15.36 MHz Motorola 68302 / 512 KB RAM / 512 KB Flash	1	1

The High-Speed Interface (HSI) port, supports full duplex communications over a V.24 interface at speeds of up to 64 Kbps.

The ISDN BRI port supports transfer rates of up to 128 kbps (over the "D" channel or the "B" channels).

Installing the Eiconcard C3x

To install the Eiconcard C3x in your PC, you must insert it into the PC's PCMCIA slot, and then connect the appropriate cable.

1   Install the Eiconcard C3x

Insert the Eiconcard C3x into the PC's PCMCIA slot as shown in Figure 1. To connect the cable to the card, position it with the embossed arrows on the cable connector facing up. Push it straight into the port on the card, and push the locking tab on the cable connector toward the PC.
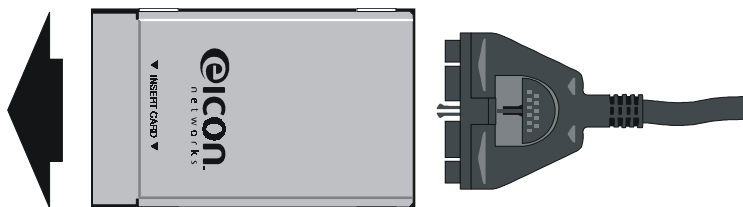

Figure 1. Installing the Eiconcard C3x and Cable

Because all the cables available for the Eiconcard C3x connect to the card in the same way, these instructions apply regardless of whether you will be making V.24 connections or ISDN connections (Eiconcard C31 only).

2   Configure Protocol Parameters

Before you can establish connections with the Eiconcard C3x, you must use the configuration utilities provided with your communications software to configure protocol-related parameters. The documentation included with your communications software describes how to configure protocol parameters and establish connections with the Eiconcard C3x.

3   Test the Eiconcard C3x

The application software you purchased with the Eiconcard C3x contains a test program to verify the integrity of the card. Consult the documentation supplied with this software for complete instructions.

4   Connect to the outside world

You are now ready to connect the Eiconcard C3x to the outside world.

- To set an ISDN connection, see 'Making an ISDN Connection' on page 8.
- To set up a VHSI connection, see 'Making a VHSI Connection' on page 9.

Making an ISDN Connection

Note *Only the Eiconcard C31 supports ISDN connections.*

After you have installed your Eiconcard C31, connect your ISDN line.

In Europe and most countries worldwide

In Europe as well as most countries outside of North America and Japan, your Eiconcard C31 adapter can be connected directly to your ISDN line using the included cable.

Figure 2 shows how the ISDN S/T2 Interface Cable, and the RJ-45 plug connect together.

RJ-45 plug to the ISDN wall jack

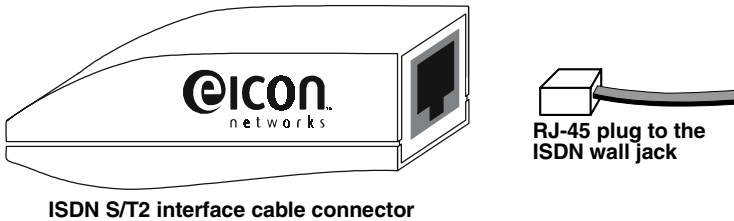**ISDN S/T2 interface cable connector**

Figure 2. Connecting the ISDN S/T2 Interface Cable

The ISDN S/T2 Interface Cable contains fully passive components and does not affect the energy consumption or other specifications of the Eiconcard. This passive interface is required to ensure regulatory compliance and guarantee proper functionality.

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Making a VHSI Connection

The Eiconcard C3x can connect as a DTE to devices such as Data Service Units (DSUs) which supports V.24, using the included Eicon Networks cable (part #300-084)

Consult the documentation which came with your networking software for more information about port configuration.

Interface Specifications

The standards compliant with the V.24 interface are listed, below:

Standard	Compatibility
CCITT V.24	Signaling
CCITT V.28	Electrical
CCITT X.21bis	Electrical and signaling
EIA RS-232-C	Electrical and signaling
ISO 2110	Connector type for the DCE side of a V.24 Modem Cable

Table 1. Interface Compatibility

The V.24 DCE Interface

A pin-out diagram for the V.24 DCE interface is shown in Figure 3. The signal definitions and names are listed in Table 2.
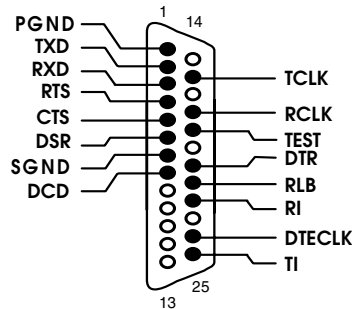
Figure 3. V.24 DCE Interface

Pin #	Signal	Name	Direction	CCITT #
1	PGND	Protective Ground	Common	101
2	TXD	Transmit Data	Output	103
3	RXD	Receive Data	Input	104
4	RTS	Request to Send	Output	105
5	CTS	Clear to Send	Input	106
6	DSR	Data Set Ready	Input	107
7	SGND	Signal Ground	Common	102
8	DCD	Data Carrier Detect	Input	109
15	TCLK	Transmit Clock (DCE)	Input	114
17	RCLK	Receive Clock	Input	115
18	TEST	Local Loopback Activation	Output	141
20	DTR	Data Terminal Ready	Output	108
21	RLB	Remote Loopback	Output	140
22	RI	Ring Indicator	Input	125
24	DTECLK	Transmit Clock (DTE)	Output	113
25	TI	Test Indicator	Input	142

Table 2. V.24 DCE Interface Signals

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Technical Specifications

Technical Data
• Type II PCMCIA Release 2.1 compliant

Eiconcard	CPU/Memory/Flash	# of VHSI Ports	#of ISDN BRI Ports
Eiconcard C30	15.36 MHz Motorola 68302 / 512 KB RAM / 512 KB Flash	1	N/A
Eiconcard C31	15.36 MHz Motorola 68302 / 512 KB RAM / 512 KB Flash	1	1

Hardware Installation
• Automatic configuration of interrupt request level setting and I/O address

External Interface

Eiconcard	External Interface	Cables
Eiconcard C30	V.24 (EIA RS-232-C)	• V.24 interface cable terminated by male DB-25 connector.
Eiconcard C31	V.24 (EIA RS-232-C)	• V.24 interface cable terminated by male DB-25 connector • ISDN interface cable with RJ-45 connector

Performance
• 64 Kbps full duplex (HSI port)
• 128 kbps (ISDN BRI port (over the "D" channel or the "B" channels))

Power Requirements
• 200 mA @ +5V

Environmental Requirements
• Operating temperature: 0°C to 50°C
• Operating humidity: 0 to 90% (non-condensing)
• Barometric operating pressure: 86 to 106 kPascals
• Maximum tolerance in power supply variation: +5% to -5%

HSI Ports
• NRZ, NRZI, and FM data encoding
• Internal or external clocking (DTE or DCE) or split (transmit internal, receive external)

Power Consumption

Warning: Check that power supply will not be overloaded. Maximum power consumption of the board is stated above. The user should check that the total power drawn by the host computer, the Eiconcard C3x, and any other peripherals, does not exceed the capability of the host power supply unit.

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International Regulatory Information

Regulatory Information for the USA:

WARNING. Changes or modifications to this unit not expressly approved by Eicon Networks Corporation could void the user's authority to operate the equipment.

Declaration of Conformity

We:

Eicon Networks Corporation
2155 Chenault Drive, Suite 503
Carrollton, Texas USA 75006
1-800-80-EICON
(972) 417-5500
Fax: (972) 417-5610

Declare under our sole legal responsibility that the products listed below to which this declaration relates, are in conformity with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

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FCC Part 68 Notice

This unit complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number. If requested, this information must be provided to the telephone company.

An FCC compliant telephone cord and modular plug is provided with this equipment, designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant.

This equipment cannot be used on telephone company-provided coin service. Connection to party line service is subject to state tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact us for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

	Facility Interface code	Digital Reg. code	Service Order code	USOC Jack Type
S/T	021S5	XD	6.0N	N/A
U	021S5	DE	6.0N	RJ-49 C

Should you experience trouble with this equipment, please contact the address on the previous page.

Regulatory Information for Canada

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. Industry Canada does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

For their own protection, users should ensure that any electrical ground connections of the power utility, telephone lines and internal metallic water pipe system are connected together. This precaution is particularly important in rural areas.

Warning: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Regulatory Information for Europe

⟨ € EU Declaration of Conformity

EN: Eicon Networks Corporation declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

DE: Eicon Networks Corporation erklärt, daß diese Telekommunikations-endeinrichtung den grundlegenden Anforderungen und anderen relevanten Bestimmungen der Richtlinie 1999/5/EG entspricht.

DK: Eicon Networks Corporation erklærer, at dette udstyr er i overensstemmelse med vigtige krav og andre relevante provisioner i Direktiv 1999/5/EC.

ES: Eicon Networks Corporation declara que este equipo cumple con los requisitos esenciales y otras disposiciones pertinentes de la Directiva 1999/5/EC.

FI: Eicon Networks Corporation takaa, että tämä laite on 1999/5/EC-direktiivin olennaisten vaatimusten ja muiden lausekkeiden mukainen.

FR: Eicon Networks Corporation déclare que cet équipement répond aux exigences essentielles et autres dispositions pertinentes de la directive 1999/5/EC.

GR: Eicon Networks Corporation προβαίνει στην ανακοίνωση ότι αυτά τα μηχανήματα έχουν τις βασικές απαιτούμενες προδιαγραφές και υπόκεινται στις υπόλοιπες σχετικές διατάξεις της Οδηγητικής 1999/5/EC.

IC: Eicon Networks Corporation lýsir hér með yfir að þetta tæki uppfyllir grunnkröfur og tengd ákvæði ESB tilskipunar nr. 1999/5/EC.

IT: La Eicon Networks Corporation certifica che la presente apparecchiatura è conforme ai requisiti di legge stabiliti nella direttiva 1999/5/EC.

NL: Eicon Networks Corporation verklaart, dat deze uitrusting in overeenstemming is met de essentiële vereisten en andere relevante bepalingen van Richtlijn 1999/5/EC.

NO: Eicon Networks Corporation erklærer herved at dette utstyret oppfyller de vesentligste krav og relevante bestemmelser i direktiv 1999/5/EF om radio- og teleterminalutstyr.

PT: A Eicon Networks Corporation declara que este equipamento está de acordo com os requisitos básicos e outras provisões relevantes da Directiva 1999/5/EC.

SE: Eicon Networks Corporation förklarar att denna utrustning överensstämmer med de väsentliga krav och regler som finns i direktivet 1999/5/EG.

To receive a detailed R&TTE Declaration for this product please send a request specifying the product name to the following e-mail address: certification@eicon.com.

Safety Status: SELV

No voltages within this equipment exceed SELV voltages. All interconnection points and ports are SELV.